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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/501,074	02/09/2000	Michael Pothier	Ntl-3.2.3078/2134 Pothier	3367

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EXAMINER	
SHAH, CHIRAG G	

ART UNIT	PAPER NUMBER
2664	3

DATE MAILED: 11/07/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/501,074	POTHIER ET AL.	
	Examiner	Art Unit	
	Chirag G Shah	2664	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *09 February 2000* .

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-46* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-4,6-12,14-20,22-28,30-36 and 38-40* is/are rejected.

7)☒ Claim(s) *5, 13, 21, 29, and 37* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 41-46 rejected under 35 U.S.C. 102(e) as being anticipated by Irwin (U.S. Patent No. 5,862,136).

Referring to claim 41, Irwin discloses in the abstract and in figures 1-4 and 25-27 of a propagated signal comprising synchronous data input by a telephone switch at a synchronous rate to an asynchronous transmission medium 80.

Referring to claim 42, Irwin further discloses in figures 1-4, and 25-27 that the propagated signal according to claim 41 input to said asynchronous transmission medium for transmission to another telephone switch.

Referring to claim 43, Irwin further discloses in figures 25-27 the propagated signal according to claim 41 wherein said synchronous data is digital data 131 and is organized into packets transmitted at a predetermined rate.

Referring to claim 44, Irwin further discloses in figures 3 and 25-27 that the propagated signal according to claim 42 wherein said synchronous data is digital data 131 and is organized into packets (fixed size ATM cells)transmitted at a predetermined size.

Referring to claim 45, Irwin discloses in the background section and in figures 25-27 that the propagated signal according to claim 42 comprising digital data representing audio telephone data.

Referring to claim 46, Irwin discloses in figure 1-4 that the propagated signal according to claim 45 further comprising telephone signaling.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. Claims 1-4, 6-12, 14-20, 22-28, 30-36, and 38-40 rejected under 35 U.S.C. 103(a) as being unpatentable over Irwin in view of Owada (U.S. Patent No. 6,219,396).

Referring to claim 1, 9, 17, 25, and 33, Irwin teaches in the abstract, and column 6, lines 4-39 of transporting packets having either of isochronous units of payload data and asynchronous units of payload data, including a buffer for asynchronously queuing units of payload data received from the receiving ports. Irwin further discloses in column 7, lines 37 to column 8, lines 36 and figure 1-4 and respective portions of the specification of apparatus, means, method for synchronizing a clock with data received via an asynchronous transmission medium, comprising: a plurality of buffers, 460, 428, 429 (Irwin discloses in column 14, lines 16-29 that queuing buffers may be implemented with a common memory that is logically managed and partitioned as queues) connected to said asynchronous transmission medium and discloses in

figure 3 circuitry configured for reading out data from said buffers at a clock rate specified by said clock. Irwin, however fails to explicitly disclose of a regulating circuit configured to regulate said clock rate according to transmission rate of said data. Owada discloses in column 2, lines 49 to column 3, lines 67 and in figures 2 and 3 and claim 1 of a read clock selector circuit that monitors the receiving buffer at a predetermined monitoring interval and further discloses that receiving buffer temporarily stores therein transmitted data received and reads out the stored received data on a connection line in response to a read clock signal supplied from the program acquisition circuit, thus regulating the clock rate according to the transmission rate of the data. Therefore, it would have been obvious to one of ordinary skill in the art to modify the teachings of Irwin to include the teaching of Owada in order to achieve regulation and regeneration that would enable the clock rate to be synchronized with the transmission data rate efficiently.

Referring to claim 2, 10, 18, 26, and 34, Irwin discloses in the abstract, and column 6, lines 4-39 of transporting packets having either of isochronous units of payload data and asynchronous units of payload data, including a buffer for asynchronously queuing units of payload data received from the receiving ports. Irwin fails to disclose regulating circuit regulates said clock rate so that said data is read out from said buffers at a rate substantially equal to a rate at which said data is transmitted via said asynchronous transmission medium. Owada discloses in column 2, lines 49 to column 3, lines 67 and in figures 2 and 3 and claim 1, the apparatus according to Claim 1 wherein: said regulating circuit regulates said clock rate so that said data is read out from said buffers at a rate substantially equal to a rate at which said data is transmitted via said asynchronous transmission medium. Therefore, it would have been obvious to one of ordinary skill in the art to modify the teachings of Irwin to include the teaching of Owada in

order to achieve regulation and regeneration that would enable the clock rate to be synchronized with the transmission data rate efficiently.

Referring to claim 3, 11, 19, 27, and 35, Irwin discloses in the abstract, background, figures 3 and 25-27 that the apparatus according to Claim 2 wherein: said data is input to said transmission medium at a predetermined constant rate; and said clock rate is initially set to said predetermined constant rate as claims.

Referring to claim 6, 14, 22, 30, and 38, Irwin discloses in figure 2, column 7, lines 38 to column 8, lines 9 that the apparatus according to Claim 1 wherein said data is organized into packets (fixed ATM cells) and said data was synchronous data prior to transmission via said asynchronous transmission medium (see also column 14, lines 3-67). Irwin fails to disclose of regulating circuit regulates said clock according to a ratio of a number of packets received during a predetermined period and a number of packets synchronously transmitted during said predetermined period. Owada discloses in column 3,lines lines 6-65 and column 4, lines 44 to column 5, lines 59 that regulating circuit regulates the packets received during a predetermined interval and the number of data packets synchronously transmitted during a predetermined interval by means of a monitoring circuit. Therefore, it would have been obvious to one of ordinary skill in the art to modify the teachings of Irwin to include the teaching of Owada in order to achieve regulation and regeneration that would enable the clock rate to be synchronized with the transmission data rate efficiently.

Referring to claim 7, 15, 23, 31, and 39, Irwin discloses in figure 2, column 7, lines 38 to column 8, lines 9 the apparatus according to Claim 1 wherein said data is organized into packets and said data was synchronous data prior to transmission via said asynchronous transmission

medium (see also column 14, lines 3-67). Irwin fails to disclose of regulating circuit regulates said clock according to a ratio of a time between two successively received packets and a time between synchronous transmission of two successive packets. Owada discloses in claim 5, and column 3,lines lines 6-65 and column 4, lines 44 to column 5, lines 59 of regulating at least two read clock signals that differ in rate from each other that have successively received packets. The program clock acquisition circuit extracts the timing signals format eh red transmitted data RD and restores the program clock signal. Therefore, it would have been obvious to one of ordinary skill in the art to modify the teachings of Irwin to include the teaching of Owada in order to achieve regulation and regeneration that would enable the clock rate to be synchronized with the transmission data rate efficiently.

Referring to claim 8, 16, 24, 32, and 40, Irwin discloses discloses in figure 2, column 7, lines 38 to column 8, lines 9 the apparatus according to Claim 1 wherein said data is organized into packets and said data was synchronous data prior to transmission via said asynchronous (see also column 14, lines 3-67). Irwin fails to disclose of regulating circuit regulates said clock according to a rate of change of transmission delay occurring in said transmission medium. Owada discloses in column 3,lines lines 6-65 and column 4, lines 44 to column 5, lines 59 of regulating the clock based on change of transmission rate (based on program clock acquisition circuit). Therefore, it would have been obvious to one of ordinary skill in the art to modify the teachings of Irwin to include the teaching of Owada in order to achieve regulation and regeneration that would enable the clock rate to be synchronized with the transmission data rate efficiently.

5. Claims 4, 12, 20, 28, and 36 rejected under 35 U.S.C. 103(a) as being unpatentable over Irwin in view of Owada as applied to claims 1-4, 6-12, 14-20, 22-28, 30-36, and 38-40 above, and further in view of Hartmann et al. (U.S. Patent No. 6,047,002).

Referring to claim 4, 12, 20, 28, and 36, Irwin in view of Owada discloses the apparatus according to Claim 1 wherein: said data is input to said transmission medium at a predetermined constant rate (ATM transmission means); and clock rate is initially set to said predetermined constant rate readout circuit commences reading said data out of said buffers when said buffers are filled to a predetermined portion of their capacity; and of regulating circuit regulates said clock rate so that said readout circuit is reading out data from said buffers at a first position that is behind a second position at which said data is being received by said buffers from said transmission medium by an amount substantially equal to said predetermined portion. Irwin in view of Owada fails to disclose buffers are circularly arranged. Hartmann discloses in the abstract, figure 5 and in column 2 lines 30 to column 3, lines 67 that communication also includes buffers coupled to each of the port adapters for buffering data (asynchronous ATM) between port adapter and communication traffic circle. Therefore, it would have been obvious to one of ordinary skill in the art to modify the teachings of Irwin in view of Owada to include the teachings of Hartmann in order to provide improved synchronous packets transmission.

Allowable Subject Matter

6. Claims 5, 13, 21, 29, and 37 objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks
Washington, D.C. 20231

Or faxed to:

(703) 305-3988, (for formal communications intended for entry)

Or:

(703) 305-3988 (for informal or draft communications, please label "Proposed" or "DRAFT")

Hand-delivered responses should be brought to Crystal Park II, 2021 Crystal Drive, Arlington, VA., Sixth Floor (Receptionist).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Chirag G Shah whose telephone number is 703-305-5639. The examiner can normally be reached on M-F 8:30 to 5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wellington Chin can be reached on 703-305-4366. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-3900.

cgs